REMARKS

The above-identified application is United States application serial number 09/693,358 filed on October 19, 2000. Claims 1-56 are pending in the application. Claims 15-18 and 20-56 are allowed. Claims 1-13 are rejected. Claim 14 is objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

Rejection of Claims Under 35 U.S.C. §103

Regarding the rejection of Claims 1-13 under 35 U.S.C. §103(a) as being unpatentable over Coke S. Reed (WO 97/04399) in view of Monacos (U.S. Patent No. 5,617,413, the applicants respectfully traverse the rejections.

Claims 1-5, 9, and 11-13 distinguish over Reed in view of Monacos on the basis that the references fail to disclose "means for detecting a condition at the node C . . . wherein the condition at the node C, depending at least in part on quality of service of messages, if any, passing from the node C to the node D, manages sending of messages from the node A to the node D." Claim 6 distinguishes over Reed in view of Monacos on the basis that the references fail to disclose "means for detecting a condition at the node C . . . wherein when the condition at the node C is that no messages are moving from the node C to the node D and implicit in a message M at the node A is a condition that a path exists from the node D to a target destination of the message M and the message M has a level of quality of service not less than the threshold of quality of service for the node A to send a message to the node D, then the node A routes the message from the node A to the node." Claim 7 distinguishes over Reed in view of Monacos on the basis that the references fail to disclose "means for detecting a condition at the node C . . . wherein when the condition at the node C is that a low quality of service (LQOS) message is sent from the node C to the node D and no other message is sent from the node C to the node D then the node A can send a high quality of service (HQOS) message to the node D so long as a HQOS message M is present at the node A and a path exists through the node A to an acceptable output port for the message M." Claim 8 distinguishes over Reed in view of Monacos on the basis that the references fail to

teach "means for detecting a condition at the node C . . . wherein when the condition at the node C is that a high quality-of-service (HQOS) message is sent from the node C to the node D and no other message is sent from the node C to the node D, then the node A can send either a high quality-of-service (HQOS) or low quality-of-service (LQOS) message from the node A to the node D so long as a message M is present at the node A such that the quality of service of the message M exceeds the minimum quality of service level for sending messages from the node A to the node D and a path exists from the node D to an acceptable output port for the message M." Claim 10 distinguishes over Reed in view of Monacos on the basis that the references fail to discloses "means for detecting a condition at the node C . . . wherein when the condition at the node C is that a high quality-of-service (HQOS) message and a low quality-of-service (LQOS) message are sent from the node C to the node D, then the node C sends the high quality-of-service (HQOS) message on the data interconnect line CD_1 and the low quality-of-service (LQOS) message on the data interconnect line CD_2."

The Examiner on page 4, lines 4-7, expresses that "priority" described in Reed discloses "quality of service" as described and claimed in the present application. However, the originally-filed specification on page 9, lines 1-13, defines "quality of service" in a manner that clearly defines "quality of service" to be different from the concept of "priority based on position" that is disclosed in Reed:

> "One aspect of the interconnect structures described herein and in the patents and applications incorporated by reference is priority to resolve conflicts or collisions of messages that attempt to pass through the same node or cell simultaneously. Priority is resolved based on the relative position of nodes in the hierarchy. Priority based on position gives node A priority over node X to send packets to node D unless a higher priority packet PX at node X is targeted for node D and a lower priority packet PA at node A is targeted for node D. In this condition, packet PX is sent to node D and the packet PA is deflected to node B as described in U. S. patent application serial no. 09/693,359. The reference also discloses similar techniques for nodes that are connected into multiple cells. In the disclosure herein, quality of service processing is extended by additional techniques assuring that high QOS

messages move more rapidly through the interconnect structure than lower QOS messages."

The Reed passage clearly describes "Quality of Service (QoS)" as being an aspect of the particular messages, separate from the pathway taken by the message through the interconnect structure.

Referring to Claim 14, which is objected to as being dependent upon a rejected base claim but would be allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims, the applicants have amended the claim as directed.

CONCLUSION

The application, including all claims, is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the examiner is requested to telephone the undersigned at (949) 251-0250.

I hereby certify that this correspondence is being facsimile transmitted to the USPTO, Central Number at (703) 872-9306 on the date shown below:

(Signature)

Joy C. Nyo
(Printed Name of Person Signing Certificate)

December 28, 2004
(Date)

(703) 872-9306
(Facsimile No.)

Respectfully submitted,

Ken J. Koestner
Attorney for Applicant(s)
Reg. No. 33,004